Work Order I March-12-13 1:46:1	,		*9829	7*						Page 1
	dle Spacer 1/13 Start Qty: 20.00	*20* *20*	Accept	*N900 Cust Item I Customer:		100	)* s	Setup Star	171	S1* S2*
	ocess Plan: MLJ	Date: 12-03-15	Tooling:	Da			F	tun Star	*N	R1*
	C:	-			ate:			Stop	*N	R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D2934	Rev B									
*100 *100* Waterjet FLOW CNC Waterjet GOG(、0 80	FLOW WATER JET  Memo 1-Cut as pe Deburr if n	er Dwg D2934 Dwg Rev:_ ecessary	0.00 0.00 Prog Rev: <u>B</u>	_ 2-			24	С.		Jm13-8-2
110	QC2- Inspect parts off r	machine FAI/FAIB	0.00							
*110* QC Quality Control	Memo		0.00				<u> 24</u>	<u>\( \)</u>		JM13-5-25
<sup>120</sup> <b>*1</b> 2∩*	QC8- Inspect parts - sec	cond check	0.00				24			
QC Quality Control	Memo		0.00 BS	)						·

Quality Control

											DQA:	Date:	
NCR:	Yes /	No			•	WORK ORDER NON-	COL	NFOR	MANCE / UP	DATE	·	<del></del> -	
											QA Closed:	Date:	
Mark Orde	or:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
Work Orde	er			<del></del>		Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
,						Use-as-is	1		noforming	Finishing		e/Packaging	Other
NCR N	No.					Work Order Update	]		Large Fab	Composite		Supplier	
													<del>,</del>
Root	ł				Descri	otion of work order update		nitial	Ac	tion	Sign &	:	
Cause	Da	ate	Step	Qty	C	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data							1						
Equip/Tooling													
Operator		1											
Material													
Setup													
Other									ė.				·
Process													
Supplier													
Training													
Unapproved								*					<u> </u>
						F	AUL	T CATE	GORY				
Landi	ng Gear			-		General		_			•	<b></b>	-
	Bend	ding			. [	Bend		Grain			Ovalized		Pressure/Forced
	Cent	re Not	t Concer	ntric to (	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration
Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

H-/FORMS/Quality Assurance	\annroved OA/NCRWO Rev (

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Work Ord March-12-13 1		297		*982				Page 2			
Item ID: Revision ID:	D2934			Accept	*N900	0401	ിറ*	Setup	Start Stop	IV.	31*
Item Name: Start Date: Required Date Reference:	Saddle Spacer 3/11/13 : 3/22/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item l Customer:	ID:			Stop	*N.	<b>ミク*</b>
Approvals:		in:	Date:	Tooling: SPC (Y/N):		ate:ate:		Run	Start Stop	*NF	₹1* ₹2* .
Sequence ID/ Work Center I 130 *120* HandFinish	D	Operation Description Chemical Conversion Co.	at per QSI005 4.1	Set Up/ Run Hours 0.00	Tool ID	Tool# Pla Co		ept Re Qt		Reject Number	Insp. Stamp
40 *140* QC Quality Control		QC Thispect Part Finish  Memo		0.00 35	3°S		24	<u>.</u>			
50 <b>*15∩*</b> Packaging		Identify as per dwg & Sto	ock Location:	0.00			2	<b>↓</b> Χ		· · · · · · · · · · · · · · · · · · ·	

Packaging

											DQA	: Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE			
											QA Closed	: Date:	· · · · · · · · · · · · · · · · · · ·
Work Ord	۰		-			DISPOSITION				AGAINST DE	PARTMENT	r/PROCESS	
VVOIR OIG	er.					Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	No.					Scrap		i	Machining	Small Fab	Pro	od. Eng. Coor.	Quality
						Use-as-is			noforming	Finishing	4	ore/Packaging	Other
NCR I	No.					Work Order Update			Large Fab	Composite		Supplier	
												<del></del>	<del></del>
Root						ption of work order update	l l	Initial		tion	Sign &	1	
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data	Ш										ļ		
Equip/Tooling												`	
Operator	Ш												
Material													
Setup								:			•		
Other						Ð							
Process			[										
Supplier													
Training	Ш												
Unapproved				<u> </u>			<u> </u>				<u></u>		
							AUI	LT CATE	GORY			· · · · · · · · · · · · · · · · · · ·	
Landi	_	Ì				General	_	10			]	Г	Pressure/Forced
	-	Bending				Bend	-	Grain		<u> </u>	Ovalized		<b>-</b>
	$\vdash$	Centre No	ot Concer	ntric to	<sup>3/S</sup>	BOM/Route	$\vdash$	Hardwa		<u> </u>	Over/Unde	<del>}</del>	Temperature/Cure Weld
	$\vdash$	Cracks			_	Broken/Damaged	$\vdash$	4 '	on Incomplete		Part Incorr		4 *****
	-	Crushed/0	Crimped.		<u> </u>	Burrs	-	1	ions Incomplete/	Unclear	Part Lost/N		Wrong Stock Pulled
	_	Cuffs				Contamination	<b>—</b>	Mainte		<u> </u>	Part Moved		
	┝┈┤	Heat Trea				Countersink	-	Mislabe		<u> </u>	Positioned		7
	1	Inspection	n Strip in	Tube		Cut Too Short	1	Misread	1	i	Power Loss	5/Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord March-12-13 1				*982	997*							Page 3
Item ID: Revision ID: Item Name:	D2934 Saddle Sp	pacer		Accept	*N900	<b>040</b>	100	*	Setup	Start Stop		S1* S2*
Start Date: Required Date Reference:	3/11/13 : 3/22/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item I Customer:	D:						!
Approvals:	Process QC:	s Plan:	Date:	Tooling: SPC (Y/N):	· · · · · · · · · · · · · · · · · · ·	ate:		1	Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center I	<b>D</b>	Operation Description QC21- Final Inspection -	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Re Qt	-	Reject Number	Insp. Stamp
QC Quality Control		Memo		0.00					1		M	

13-5-30

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	100	VFOR	MANCE / UP	DATE			
											QA Closed:	Date:	
Mork Ord	~~.					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Work Ord	er.					Rework	٦		Skid-tube	Crosstube	1	Water Jet	Engineering
Dort 1	vi o					Scrap	1	Ι.	Machining Vacanting	Small Fab	Dro	d. Eng. Coor.	Quality
Part i	NO.					Use-as-is	1		noforming	Finishing		re/Packaging	Other
NCR I	No.					Work Order Update		mem	Large Fab	Composite	i ilec/stoi	Supplier	
IVCK	١0.					Work order opdate	ן נ		Zarge ras		J		
Root					Descri	ption of work order update	] [	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling											<u> </u>	` .	
Operator							1						
Material					}		ļ						
Setup			ĺ										
Other													
Process													
Supplier													
Training													
Unapproved			l	<u> </u>					S				
						F	AUL	T CATE	GORY				
Landi	ng (	Gear				General		,			,		1
1	L	Bending				Bend		Grain			Ovalized		Pressure/Forced
	L	Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks			<u> </u>	Broken/Damaged		Inspect	on Incomplete		Part Incorre	ct	Weld
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Contamination Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

**Picklist Print** 

March-12-13 1:46:12 PM

Work Order ID:

98297

Parent Item:

Comments:

D2934

Parent Item Name:

Saddle Spacer

IPP A00.06.06New IssueEC

IPP Rev:B Now 6061-T6 06-06-23 JLM

**Start Date:** 3/11/13

Required Date: 3/22/13

**Start Qty: 20.00** 

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.080		Purchased	No			100	sf	303.0000	0.0318	0.669474	4		
6061-T6 .080 Sheet												***************************************	<u>Jn.13.5.25</u>
				<b>Location</b>		Loc Oty	Lo	oc Code					1
				MAT021		303.000032							ĺ
				1172	285	0.497264							ı
				1245	572	0.502768							
				1247	786	302			ME.	<u> 285 </u>			į.

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Page 1

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												DQA:	Date	:
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	ANCE / UPD	DATE				
											,	QA Closed:	Date	:
Work Orde	۰					DISPOSITION				AGA	NST DE	PARTMENT,	/PROCESS	
Work Orde	er. -		<del></del>			Rework	1		Skid-tube	Crossi	uhe		Water Jet	Engineering
Part N	Mo					Scrap			Machining	Small		Pro	d. Eng. Coor.	Quality
rarer	•0.					Use-as-is	1		noforming		hing	1	re/Packaging	Other
NCR I	No.					`Work Order Update	1		Large Fab	Compo	~		Supplier	1
	•					' <u>'</u>	_							
Root					Descri	ption of work order update		Initial	Acti	ion		Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descri	iption		Date	Verification	QC Inspector
Doc/Data														
Equip/Tooling	Ш												·	
Operator	Ш													
Material	Ш													
Setup	Ш								,					
Other	Ш													
Process	Ш							ï						
Supplier	Ш											}		
Training	Ш													
Unapproved			<u> </u>	<u> </u>										
							AUL	T CATE	GORY	<del></del>				
Landi						General		1				1		٦.
	$\vdash$	Bending				Bend	<u> </u>	Grain			ļ <del></del>	Ovalized		Pressure/Forced
	Н	Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa				Over/Under		Temperature/Cure
1	ш	Cracks			<u> </u>	Broken/Damaged	_	-{ `	on Incomplete		<u> </u>	Part Incorre	<b>⊢</b>	Weld
		Crushed/	Crimped.			Burrs	$\vdash$	4	ions Incomplete/L	Inclear	<u> </u>	Part Lost/M	· -	Wrong Stock Pulled
	$\vdash$	Cuffs				Contamination	<u></u>	Mainte			<u> </u>	Part Moved		
		Heat Trea			_	Countersink	_	Mislabe			ļ	Positioned \		<b>-1</b>
	l	Inspection	n Strip in	Tube		Cut Too Short	1	Misread				Power Loss,	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

DART AEROSPACE LTD	Work Order:	98297
Description: Saddle Spacer	Part Number:	D2934
Inspection Dwg: D2934 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

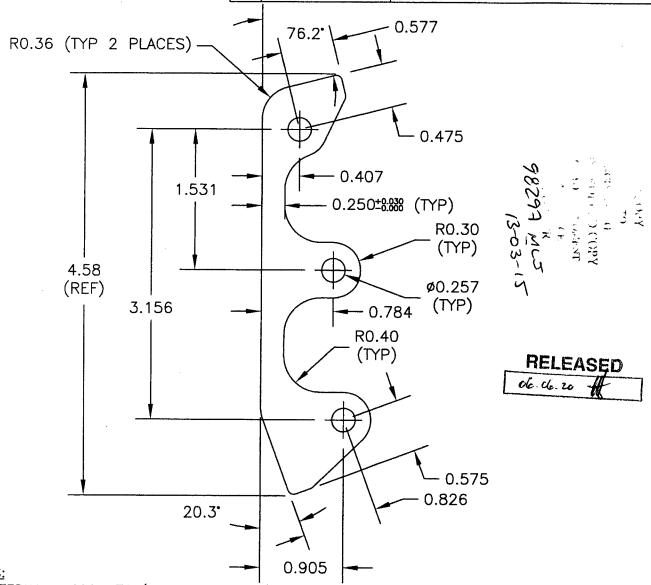
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.475	+/-0.010	0.477"	-		V	Jkmu
0.407	+/-0.010	0,410"	_		V	
0.250	+0.030/-0.000	0.7-23,	ı		V	
R0.30	+/-0.030	0,80	1		RG	
Ø0.257	+0.005/-0.000	0.257"	-		V	
0.784	+/-0.010	0.784"	_		V	
0.826	+/-0.010	O. 526,	_		ν	
R0.36	+/-0.030	<i>ن</i> .36°			RG	
0.080	+/-0.010	0.078"			V	
			-			
				P		
					• •	
		-				
·						,

Measured by:	Jm	Audited by:	3131	Prototype Approval:	N/A
Date:	13-5-25	Date:	13527	Date:	N/A

Rev	Date	Change	Revised by Approved
Α	04.08.12	New Issue	KJ/JLM
В	06.06.23	Dwg Rev. changed	KJ/JLM , ,
С	08.08.27	0.080 dimension added	KJ/DD X



	DESIG	, ‡‡	DRAWN BY	DART AEROSPACE PORT HADLOCK,	
	CHEC		APPROVED 4//	DRAWING NO.	REV. B
		PH		D2934	SHEET 1 OF 1
	DATE			TITLE	SCALE
	06.05.29			SADDLE SPACER	1:1
-	Α		99.11.02	NEW ISSUE	
	В		06.05.29	ADD 6061-T6 MATERIAL	



NOTES:

1) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK

(REF DART SPEC M6061T6S.080)

ÓR

5052-H32/H34 (PER QQ-A-250/8 OR AMS 4016) 0.080" THICK

(REF DART SPEC M5052H32S.080)

2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1

- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 5) ALL DIMENSIONS ARE IN INCHES

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